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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/565,562

01/23/2006

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EXAMINER

PARKER, FREDERICK JOHN

ART UNIT

PAPER NUMBER

1762

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/565,562	<b>Applicant(s)</b> HUEHSAM, ANDREAS	
	<b>Examiner</b> Frederick J. Parker	<b>Art Unit</b> 1762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 12-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 12-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>1-23-06</u> . | 6) <input type="checkbox"/> Other: ____  |

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Specification***

2. The disclosure is objected to because of the following informalities: (1) 0009, it is unknown what is meant by "electrostatic embrace" (Faraday cage effect?). Appropriate correction is required.

### ***Claim Objections***

3. Claim 28 is objected to because of the following informalities: Apparatus claim 28 refers back to method claim 21 which is confusing; appropriate or intended wording of claim 21 should be incorporated rather than simply referring back to claim 21; this would clarify the claim. Further, an apparatus used in rejections need not be exclusively used for Applicants intended use as long as it is capable of additional uses. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 12,1318-20,22-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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- Claim 12 is vague and indefinite because it is unclear which of the two thickness ranges are the intended thickness limitation.
- Claim 13; "preferably grounded body" lacks antecedent basis.
- Claims 18-20, the relative term "high" renders the claim vague and indefinite because the intended voltage potential is indefinite and undisclosed.
- Claims 22-25 are claim vague and indefinite because it is unclear why one would remove the powder after going to all the trouble of applying it; for examination, removal of selective areas of powder or excess powder will be considered to meet the limitation.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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8. Claims 12,13,16,18,20,21,22,24-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Habsburg-Lothringen US 5540776 in view of Hopeck US 5316801 and Otani et al US 5741558.

Habsburg-Lothringen teaches a method of coating 3-dimensional grounded (per clm 13) electrical armature and stator workpieces in a conveyor production line comprising a single housing including a powder coating means and a cleaning means for removing excess or undesired coating powder from coated workpieces (col. 3, 33-44 and elsewhere), the coating means exemplified by an electrostatic fluidized bed but explicitly not limited thereto, the background teaching the use of spray means for powder coating such articles (col. 4, 43-52 & "Background..." section, etc). Hence the use of an electrostatic spray means instead of the exemplified fluidizing means would have been obvious because the reference itself recognizes the utility of electrostatic spraying for the same purpose with the benefit of spraying specific desired portions of the substrate. The coating of slots in stators is cited, for example col. 13, 44-45, etc. The reference is silent on the thickness of coatings; however, Hopeck teaches a similar electrostatic spray coating of the same (epoxy) powders in which it is stated on col. 4, 14-18 that coatings up to approximately 0.045"/1.14 mm can be achieved before the insulating qualities of the coating material cause the thickness to become self-limiting. The subject matter as a whole would have been obvious to one of ordinary skill in the art at the time the invention was made if the overlapping portion of the coating thickness disclosed by the reference were selected because overlapping ranges have been held to be a prima facie case of obviousness, see *In re Wortheim* 191 USPQ 90. Coated workpieces are heated to cure, (Background... section and elsewhere) per claim 26. Cooling is not cited but would have been apparent to give the coated product practical

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commercial utility since an article at curing temperatures would not be commercially viable, per claim 27. However, details of the spraying means are not disclosed.

Otani et al teaches a high voltage electrostatic spray means (clms 18,20) for direct coating of 3-dimensional objects on conveyors without further limitation, thereby clearly capable of coating the 3-dimensional electrical workpieces of Habsburg-Lothringen. The spray means comprises a spray gun, powder source/ hopper, pressurized air pump, air regulator, etc so the pressurized air source (clm 16) is supplied and regulated which in turn regulates the powder aspirated/ drawn into the powder pump and discharged from the powder gun (clm 21,22,24,25). See col. 2, 39-61; col. 4, 46-64, fig. 1, and elsewhere. It is recognized powder spraying of 3-dimensional objects minimizes the amount of wasted coating material (as also suggested by Habsburg-Lothringen), which is an economic incentive. It is well-established that economics alone may provide motivation or suggestion to combine a reference, *In re Clinton*, 188 USPQ365.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Habsburg-Lothringen by incorporating the spray means of Otani et al in the coating housing to provide a known coating means for 3-dimensional workpieces which further provides the benefit of reducing powder waste/ improving process economics.

9. Claims 14,15,17,19,23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Habsburg-Lothringen US 5540776 in view of Hopeck US 5316801 and Otani et al US 5741558, and further in view of Matsuzaki et al US 5319002. Previously cited references are used for the same reasons already discussed, which are incorporated herein. Particle size is not taught.

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Matsuzaki et al recognizes the need for electrostatically applicable epoxy-based powders which form thick coatings, and set forth a coating powder having particles in the range of 3-180 microns. Application of the inventive epoxy-based powders onto slots of motor armatures are cited in Example 1 (PS about 165 microns).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Habsburg-Lothringen in view of Hopeck and Otani et al by incorporating the larger particle sized materials of Matsuzaki et al to provide thick but uniform insulating films which can be applied electrostatically.

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10. Claims 28-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Habsburg-Lothringen US 5540776 in view of Toani et al US 5741558.

Habsburg-Lothringen teaches an apparatus for coating 3-dimensional workpiece in a conveyor production line comprising a single housing including a powder coating means and a cleaning means for removing excess or undesired coating powder from workpieces (col. 3, 33-44 and elsewhere), the coating means exemplified by a fluidized bed but explicitly not limited thereto, the background teaching the use of spray means for powder coating such articles (col. 4, 43-52 & "Background..." section, etc). Hence the use of a spray means instead of the exemplified fluidizing means would have been obvious because the reference itself recognizes the utility of spraying for the same purpose with the benefit of spraying coating specific desired portions of the substrate. However, details of the spraying means are not disclosed.

Otani et al teaches a spray means for coating 3-dimensional objects on conveyors without limitations, thereby clearly capable of coating the workpieces of Habsburg-Lothringen. The

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spray means comprises a spray gun, powder source/ hopper, pressurized air pump, air regulator, etc so the pressurized air source is supplied and regulated which in turn regulates the powder aspirated/ drawn into the powder pump and discharged from the powder gun. See col. 2, 39-61; col. 4, 46-64, fig. 1, and elsewhere. It is recognized powder spraying of 3-dimensional objects minimizes the amount of wasted coating material (as also suggested by Habsburg-Lothringen), which is an economic incentive. It is well-established that economics alone may provide motivation or suggestion to combine a reference, *In re Clinton*, 188 USPQ365.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Habsburg-Lothringen by incorporating the spray means of Otani et al in the coating housing to provide a known coating means for 3-dimensional workpieces which further provides the benefit of reducing powder waste/ improving process economics.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frederick J. Parker whose telephone number is 571/ 272-1426. The examiner can normally be reached on Mon-Thur. 6:15am -3:45pm, and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571/272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Frederick J. Parker  
Primary Examiner  
Art Unit 1762

fjp